



# KALIM8

**ADIDAS TECH SPORTS: "DEFEND YOUR BALLS"** 

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### THE STORY – SITUATION:

- 1. There are a lot of people that play basketball, but how many of them know how to defend in a correct way?
- 2. We have a great solution, from now on we will help everyone to play in a professional way.
- 3. Our project can be used by everyone, just visit our website!
- 4. Take a photo of yourself doing the defense position and the application will tell if it's correct or wrong. If it isn't correct, just try again, you will achieve it sooner or later ©
- 5. Faster than you think you'll become a master in basketball, don't stop training!

## THE STORY - GRAPHIC EXAMPLE









### **DESCRIPTION**



- For developing the project we have used:
  - Flask (Python backend for our web server).
  - Neural network based on Keras running on top of TensorFlow
- Using our application could be used by players as well as coaches for improving their skills (defense position in basketball in this demo). On the other hand, people could train his favorite sport without being dependent of a trainer, working on their own.
- The main advantage of our application is that you just need a photo and a browser, and we do the rest of the work!



- Thanks to our project, it's possible to train sports in a different way, far from traditional methods like gym classes or tedious courses. In our app you are the protagonist of your own training!
- We can offer our application as a free trial where you have some movements of every sport and for the rest of them you would have to pay. This way, users who only practice one sport would just buy theirs and for those ones who prefer to do lots of different sports it's possible to buy some movements of each one.



## **FUTURE PLANS**

- 1. In the future we'll be not limited by time, so we can implement more basketball positions like shot, dribble, roll...
- 2. And we are not just talking about basketball. This application could be used in every sport you can imagine:
  - -Do you want to learn how to have the pose of a good goalkeeper?, you can.
  - -Do you want to learn an accurate hook at boxing?, no problem!
- 3. Finally, we would like to add a real time trainer where, using a webcam you can train without the need of uploading a photo. You can do it everywhere and at any time!
  - We have thought how to implement it: thanks to an opensource tool called OpenPose we can draw a skeleton in real time from the webcam image and compare it with the neural network.





